Serial NO. 09/903,160
Atty. Docket No. MIO 0062 PA

40. (New) A method for forming a capacitor comprising: providing a non-oxide electrode, in a deposition chamber oxidizing an upper surface of said non-oxide electrode in an atmosphere containing a gas plasma generated from a gas selected from the group consisting of $O_2$, $O_3$, $H_2O$, and $N_2O$, in the same deposition chamber depositing a high dielectric constant dielectric material on the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

41. (New) A method for forming a capacitor comprising: providing a non-oxide electrode selected from the group consisting of TiN, TaN, WN, and W, in a deposition chamber oxidizing an upper surface of said non-oxide electrode, in the same deposition chamber depositing a high dielectric constant oxide dielectric material on the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

## REMARKS

Claims 1-38 are pending in the application. Claims 30-37 have been withdrawn from consideration in response to a restriction requirement and have now been canceled. Claims 1-29 and 38 have been rejected.

Claims 1, 4, and 9 have been rejected under 35 USC §102(e) as being anticipated by U.S. Patent No. 6,319,542 to Summerfelt et al. Summerfelt et al. teaches a method of forming a capacitor using lightly donor doped electrodes for high-dielectric-constant materials. The capacitor is formed by placing a TiN upper electrode 38 over an undoped high-dielectric-constant BST layer 36. The BST layer 36 overlays a lightly La donor doped BST lower electrode 34. The lightly La donor doped BST lower electrode is formed on a TiN electrode buffer layer 42. See col. 4, lines 20-27.

Summerfelt et al. does not teach oxidizing the upper surface of the non-oxide electrode as recited in claims 1, 4, and 9. In fact, Summerfelt et al. teaches that TiN works relatively well in the capacitor because of its conductivity characteristics. See col.